

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims:

1. (Currently Amended) A computer-implemented method for modifying network configuration information on a client node, the method comprising:
  - establishing a network connection between a client node and a host node using at least one network configuration parameter;
  - accessing configuration history information describing parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of [[a]] at least one previous and no longer active network connection between the client node and the host node;
  - accessing policy information including a desired network connection performance rule, the network performance rule relating to at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate;
  - using the configuration history information along with the policy information to determine whether at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and
  - if it is determined that the at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

2. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes:

receiving the policy information from the host node; and  
analyzing the received policy information.

3. (Previously presented) The computer-implemented method of claim 1, wherein: establishing the network connection includes establishing a modem connection using at least one modem configuration parameter;

modifying the at least one network configuration parameter includes modifying the at least one modem configuration parameter.

4. (Currently Amended) The computer-implemented method of claim 1, further comprising:

if it is determined that at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying a plurality of the network configuration parameters; and

establishing a second network connection between the client node and the host node using the modified plurality network configuration parameters.

5. (Original) The computer-implemented method of claim 4, wherein the at least one modem configuration parameter includes a dialed number parameter and a connection speed parameter.

6. (Original) The computer-implemented method of claim 5, wherein the at least one modem configuration parameter further includes a data compression technique parameter and a modulation technique parameter.

7. (Previously presented) The computer-implemented method of claim 1, wherein:

establishing the network connection includes establishing an Internet connection between the client node and the host node using at least one Internet configuration parameter; and  
modifying the at least one network configuration parameter further includes modifying the at least one Internet configuration parameter to establish a second Internet connection.

8. (Original) The computer-implemented method of claim 7, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.

9. (Original) The computer-implemented method of claim 8, wherein the at least one Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.

10-12. (Canceled)

13. (Previously presented) The computer-implemented method of claim 1, wherein the performance rule includes a rule for specifying performance criteria.

14. (Previously presented) The computer-implemented method of claim 1, wherein the policy information further includes host access information used by the client node when modifying the at least one network configuration parameter.

15. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one modem access number.

16. (Original) The computer-implemented method of claim 14, wherein the host access information includes at least one Internet Protocol (IP) address.

17. (Previously presented) The computer-implemented method of claim 1, further comprising:

terminating the network connection; and  
establishing a second network connection based on the modified at least one network configuration.

18. (Original) The computer-implemented method of claim 1, further comprising sending the configuration history information to the host node.

19. (Currently Amended) The computer-implemented method of claim 1, further comprising:

establishing a second network connection based on the modified at least one network parameter; and

collecting additional configuration history information on the client node, the additional configuration history information including at least one parameter performance statistic including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate that is related to the second network connection.

20. (Currently Amended) A computer system, comprising:  
a memory; and  
a processor operable to execute instructions contained in the memory, the processor being thereby programmed to:

establish a network connection between a client node and a host node using at least one network configuration parameter;

access configuration history information describing parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of [[a]] at least one previous previous and no longer active network connection between the client node and the host node;

access policy information including a desired network connection performance rule, the network performance rule relating to at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate;

use the configuration history information along with the policy information to determine whether at least one of the parameters performance statistics including at least

one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

if it is determined that the at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modify the at least one network configuration parameter used to establish the network connection between the client node and the host node.

21. (Original) The computer system of claim 20, further comprising an input/output device.

22. (Previously presented) The computer system of claim 20, further comprising a network adaptor to interface with a network device during establishment of the network connection.

23. (Original) The computer system of claim 22, wherein the network device is a modem.

24. (Original) The computer system of claim 22, wherein the network device is a cable modem.

25. (Currently Amended) A computer system that includes a processor operable to execute instructions contained in a memory, the processor comprising:

means for establishing a network connection between a client node and a host node using at least one network configuration parameter;

means for accessing configuration history information describing parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or

signal-to-noise rate of [[a]] at least one previous and no longer active network connection between the client node and the host node;

means for accessing policy information on the client node including a desired network connection performance rule, the network performance rule relating to at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate;

means for using the configuration history information along with the policy information to determine whether at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

means for modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node if it is determined that the at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule.

26. (Currently Amended) A computer-readable medium having computer-executable instructions contained therein for performing a method, the method comprising:

establishing a network connection between a client node and a host node using at least one network configuration parameter;

accessing configuration history information describing parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of [[a]] at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule, the network performance rule relating to at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate;

using the configuration history information along with the policy information to determine whether at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous

and no longer active network connection fails to satisfy the desired network connection performance rule; and

if it is determined that the at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modify the at least one network configuration parameter used to establish the network connection between the client node and the host node.

27. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing the configuration history information stored on the client node.

28. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last network connection speed and specifying speed of the previous network connection between the client node and the host node.

29. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing information related to a last dialed number associated with the previous network connection and specifying a previous number dialed by the client node to access the host node.

30. (Previously presented) The computer-implemented method of claim 1, wherein accessing the configuration history information includes accessing configuration history information describing last Internet Protocol (IP) associated with the previous network connection, the last IP address specifying previous IP address used by the client node to access the host node.

31. (Currently Amended) The computer-implemented method of claim 1, wherein:

accessing the configuration history information includes accessing configuration history information describing performance statistics including abnormal disconnect rate of the at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the network performance rule relating to abnormal disconnect rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node;

32. (Currently Amended) The computer-implemented method of claim 1, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including retain rate of the at least one previous and no longer active network connection between the client node and the host node;

accessing the policy information includes accessing a desired network configuration performance rule, the network performance rule relating to retain rate; that relates to at least one of failure rate information, abnormal disconnect rate, connect failure rates, retain rates, busy rates, or signal to noise rate of the previous network connection

using the configuration history information includes using the configuration history information along with the policy information to determine whether the retain rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the retain rate of the at least one previous and no longer active network connection fails to



satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

33. (Previously presented) The computer-implemented method of claim 1, further comprising accessing the policy information from storage on the client node.

34. (Previously presented) The computer-implemented method of claim 1, wherein modifying the at least one network configuration parameter includes modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node so that the network connection is configured to operate as the desired network connection.

35. (Previously presented) The computer-implemented method of claim 3, wherein modifying the at least one modem configuration parameter includes establishing a second network connection with a second modem connection.

36. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

37. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that performance considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

38. (Previously presented) The computer-implemented method of claim 1, wherein accessing the policy information includes accessing the policy information indicating that cost and performance considerations are to be used in a predetermined weighting in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

39. (Currently Amended) A computer-implemented method for modifying network configuration information on a client node, the method comprising:

establishing a network connection between a client node and a host node using at least one network configuration parameter;

collecting, on a client node, configuration history information, the configuration history information describing performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of [[a]] at least one previous and no longer active network connection between the client node and a host node;

storing, on the client node, the configuration history information;

accessing the configuration history information stored on the client node;

accessing policy information stored on the client node, the policy information including a desired network connection performance rule relating to at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate;

using the configuration history information along with the policy information to determine whether at least [[on]] one of or a combination of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the rule associated with the desired network connection; and

if it is determined that the at least one of the parameters performance statistics including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

40. (Previously presented) The computer-implemented method of claim 39, wherein:  
establishing the network connection includes establishing a modem connection using at  
least one modem configuration parameter;

modifying the at least one network configuration parameter includes modifying the at  
least one modem configuration parameter to establish a second network connection, wherein the  
second network connection is in agreement with the desired network connection.

41. (Currently Amended) The computer-implemented method of claim 39, further  
comprising:

if it is determined that at least one of the parameters performance statistics including at  
least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate of the at least  
one previous and no longer active network connection fails to satisfy the desired network  
connection performance rule, modifying a plurality of the network configuration parameters; and  
establishing a second network connection between the client node and the host node  
using the modified plurality network configuration parameters.

42. (Previously presented) The computer-implemented method of claim 41, wherein  
the at least one modem configuration parameter includes a dialed number parameter and a  
connection speed parameter.

43. (Previously presented) The computer-implemented method of claim 42, wherein  
the at least one modem configuration parameter further includes a data compression technique  
parameter and a modulation technique parameter.

44. (Previously presented) The computer-implemented method of claim 39, wherein:  
establishing the network connection includes establishing an Internet connection between  
the client node and the host node using at least one Internet configuration parameter; and  
modifying the at least one network configuration parameter further includes modifying  
the at least one Internet configuration parameter to establish a second Internet connection.

45. (Previously presented) The computer-implemented method of claim 44, wherein the at least one Internet configuration parameter includes a host Internet Protocol (IP) address parameter and a connection speed parameter.

46. (Previously presented) The computer-implemented method of claim 45, wherein the at least one Internet configuration parameter further includes a data compression technique parameter and an encryption technique parameter.

47. (Previously presented) The computer-implemented method of claim 39, further comprising:

terminating the network connection; and

establishing a second network connection based on the modified at least one network configuration.

48. (Currently Amended) The computer-implemented method of claim 39, further comprising:

establishing a second network connection based on the modified at least one network parameter; and

collecting additional configuration history information on the client node, the additional configuration history information containing at least one parameters performance statistic including at least one of abnormal disconnect rate, retain rate, busy rate, or signal-to-noise rate that is related to the second network connection.

49. (Previously presented) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing information related to a last network connection speed and specifying speed of the previous network connection between the client node and the host node.

50. (Previously presented) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing information related to a last

dialed number associated with the previous network connection and specifying a previous number dialed by the client node to access the host node.

51. (Previously presented) The computer-implemented method of claim 39, wherein accessing the configuration history information includes accessing configuration history information describing last Internet Protocol (IP) associated with the previous network connection, the last IP address specifying previous IP address used by the client node to access the host node.

52. (Currently Amended) The computer-implemented method of claim 39, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including abnormal disconnect rate of the at least one previous and no longer active network connection between the client node and the host node;  
accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the network performance rule relating to abnormal disconnect rate;  
using the configuration history information includes using the configuration history information along with the policy information to determine whether the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and  
modifying the at least one network configuration parameter includes, if it is determined that the abnormal disconnect rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

53. (Currently Amended) The computer-implemented method of claim 39, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including retain rate of the at least one previous and no longer active network connection between the client node and the host node;

accessing the policy information includes accessing a desired network configuration performance rule, the network performance rule relating to retain rate; that relates to at least one of failure rate information, abnormal disconnect rate, connect failure rates, retain rates, busy rates, or signal to noise rate of the previous network connection

using the configuration history information includes using the configuration history information along with the policy information to determine whether the retain rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the retain rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

54. (Previously presented) The computer-implemented method of claim 39, wherein modifying the at least one network configuration parameter includes modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node so that the network connection is configured to operate as the desired network connection.

55. (Previously presented) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that cost considerations are to be prioritized in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

56. (Previously presented) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that performance considerations are to be prioritized in determining whether the at least one

parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

57. (Previously presented) The computer-implemented method of claim 39, wherein accessing the policy information includes accessing the policy information indicating that cost and performance considerations are to be used in a predetermined weighting in determining whether the at least one parameter of the previous and no longer active network connection fails to satisfy the desired network connection performance rule.

58. (New) The computer-implemented method of claim 1, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including busy rate of the at least one previous and no longer active network connection between the client node and the host node;  
accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule, the network performance rule relating to busy rate;  
using the configuration history information includes using the configuration history information along with the policy information to determine whether the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and  
modifying the at least one network configuration parameter includes, if it is determined that the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

59. (New) The computer-implemented method of claim 1, wherein:  
accessing the configuration history information includes accessing configuration history information describing performance statistics including signal-to-noise rate of the at least one previous and no longer active network connection between the client node and the host node;



accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule; the network performance rule relating to signal-to-noise rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.

60. (New) The computer-implemented method of claim 39, wherein:

accessing the configuration history information includes accessing configuration history information describing performance statistics including busy rate of the at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule; the network performance rule relating to busy rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the busy rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.



61. (New) The computer-implemented method of claim 39, wherein:

accessing the configuration history information includes accessing configuration history information describing performance statistics including signal-to-noise rate of the at least one previous and no longer active network connection between the client node and the host node;

accessing policy information including a desired network connection performance rule includes accessing policy information including a desired network connection performance rule; the network performance rule relating to signal-to-noise rate;

using the configuration history information includes using the configuration history information along with the policy information to determine whether the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule; and

modifying the at least one network configuration parameter includes, if it is determined that the signal-to-noise rate of the at least one previous and no longer active network connection fails to satisfy the desired network connection performance rule, modifying the at least one network configuration parameter used to establish the network connection between the client node and the host node.